CS29003 ALGORITHMS LABORATORY
(WorkSheet 2)
Date: Sep 19 2020

1 Write the algorithm using Divide and Conquer technique for the following problem and explain the steps. Also compute the time complexity.

Imagine a different world where stock prices can also go negative on some days. Suppose you have the daily stock prices of a company of previous N days and you want to know in which period the company had maximum growth. The stock prices are supplied as an 1D array. Write an algorithm to find the maximum growth.

Example: Let us say the given array is {-3, -5, 8, -4, -1, 2, 4, -7}. The maximum growth will be 9 in this case. Note that here the maximum growth is from 8 to 4, i.e., $8 + (-4) + (-1) + 2 + 4 = 9$. In actual case these array values will be taken as floating point numbers representing stock prices.